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PATENT COOPERATION TREATY

PCT/DE2003/004255



541558

PCT

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference P01781WO	FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/DE2003/004255	International filing date (day/month/year) 23 December 2003 (23.12.2003)	Priority date (day/month/year) 06 January 2003 (06.01.2003)
International Patent Classification (IPC) or national classification and IPC F16H 61/00		
Applicant ROHS, Ulrich		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.

2. This REPORT consists of a total of 6 sheets, including this cover sheet.

☒ This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of 7 sheets.

3. This report contains indications relating to the following items:

- I ☒ Basis of the report
- II ☐ Priority
- III ☐ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- IV ☐ Lack of unity of invention
- V ☒ Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI ☐ Certain documents cited
- VII ☐ Certain defects in the international application
- VIII ☐ Certain observations on the international application

Date of submission of the demand 29 June 2004 (29.06.2004)	Date of completion of this report 22 April 2005 (22.04.2005)
Name and mailing address of the IPEA/EP	Authorized officer
Facsimile No.	Telephone No.

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International application No.

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I. Basis of the report

1. With regard to the elements of the international application:*

- ☐ the international application as originally filed
- ☒ the description:
 pages 1-23, as originally filed
 pages _____, filed with the demand
 pages _____, filed with the letter of _____
- ☒ the claims:
 pages _____, as originally filed
 pages _____, as amended (together with any statement under Article 19
 pages _____, filed with the demand
 pages 1-32, filed with the letter of 21 January 2005 (21.01.2005)
- ☒ the drawings:
 pages 1/20-20/20, as originally filed
 pages _____, filed with the demand
 pages _____, filed with the letter of _____
- ☐ the sequence listing part of the description:
 pages _____, as originally filed
 pages _____, filed with the demand
 pages _____, filed with the letter of _____

2. With regard to the language, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language _____ which is:

- ☐ the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of the translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. ☐ The amendments have resulted in the cancellation of:

- ☐ the description, pages _____
- ☐ the claims, Nos. _____
- ☐ the drawings, sheets/fig _____

5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).**

* Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rule 70.16 and 70.17).

** Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.

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V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims	1-32	YES
	Claims		NO
Inventive step (IS)	Claims	30	YES
	Claims	1-29, 31. 32	NO
Industrial applicability (IA)	Claims	1-32	YES
	Claims		NO

2. Citations and explanations

1. This report refers to the following documents:

D1: US-A-3087348

D2: US-A-6030310

D3: EP-A-466113

D4: JP-A-2001-124163

D5: JP-A-6-174030.

2. Document D1 discloses (the references in parentheses relate to this document): contact pressure device (100, 130) for clamping two torque-transmitting gear members that roll one upon the other, with means for detecting a relevant parameter such as transmitted torque in particular, and with means for applying a contact pressure corresponding to the detected parameter, the contact pressure device (100, 130) comprising at least two contact pressure subunits, of which the first (130) of the two contact pressure subunits has a shorter reaction time than the second (100) of the two contact pressure subunits. The subject matter of claim 1 differs, then, from the known contact pressure device in that this contact pressure device is used with a conical friction ring gear. However, a person skilled in the art is

generally aware that conical friction ring gears and the toroidal gear from D1 are equivalent and that the contact pressure devices in the two gears are, if necessary, interchangeable. The subject matter of claim 1 therefore does not involve an inventive step (PCT Article 33(3)).

3. Document D1 discloses also the particular features of claims 2, 3, 7, 8, 11, 13, 14, 16, 18-20, 25-28 and 31. The subject matter of claims 2, 3, 7, 8, 11, 13, 14, 16, 18-20, 25-28 and 31 therefor does not involve an inventive step (PCT Article 33(3)).
4. Document D2 discloses (the references in parentheses relate to this document): contact pressure device (89, 50) for clamping two torque-transmitting gear members that roll one upon the other, with means of detecting a relevant parameter such as the torque transmitted in particular, and with means of applying a contact pressure corresponding to the parameter detected, the contact pressure device (89, 50) comprising at least two contact pressure subunits (89, 50) and the first contact pressure subunit (50) providing a contact pressure greater than or equal to the contact pressure provided by the contact pressure device (89, 50) and the second contact pressure subunit (89) reducing the contact pressure provided by the first contact pressure subunit. The subject matter of claim 4 differs, then, from the known contact pressure device in that this contact pressure device is used with a conical friction ring gear. However, a person skilled in the art is generally aware that conical friction ring gears and the toroidal gear known from document D1 are equivalent and that the contact pressure devices

in the two gears are, if necessary, interchangeable. The subject of claim 4 therefore does not involve an inventive step (PCT Article 33(3)).

5. Document D2 also discloses the special features of claims 5, 6, 9, 10, 15 and 17. The subject matter of claims 5, 6, 9, 10, 15 and 17 therefore does not involve an inventive step (PCT Article 33(3)).
6. Document D3 discloses (the references in parentheses relate to this document): method of operating a friction gear with at least one input member and at least one output member, which are pressed together by means of a contact pressure device (46, 50), the contact pressure device (46, 50) being operated with an operating state-contact pressure characteristic that has a different mean gradient between an idle state and a first operating state of the friction gear than between the first operating state and a second operating state. The subject matter of claim 24 differs, then, from the known method in that this method is used with a conical friction ring gear. However, a person skilled in the art is generally aware that conical friction ring gears and the toroidal gear known from document D1 are equivalent and that the contact pressure devices in the two gears are, if necessary, interchangeable. The subject matter of claim 24 therefore does not involve an inventive step (PCT Article 33(3)).
7. Document D3 also discloses the special features of claim 29. The subject matter of claim 29 therefore does not involve an inventive step (PCT Article 33(3)).

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8. A similar objection as in point 2 is raised on the basis of D4. Document D4 also discloses the additional features of claims 22 and 32. The subject matter of claims 22 and 32 therefore does not involve an inventive step (PCT Article 33(3)).
9. A similar objection as in point 2 is raised on the basis of D5. Document D5 also discloses the additional features of claim 23. The subject matter of claim 23 therefore does not involve an inventive step (PCT Article 33(3)).
10. The feature indicated in claim 12 represents just one of a number of obvious possibilities from which a person skilled in the art would choose under the circumstances in order to solve the problem of interest, without thereby being inventive. Thus, the subject matter of claim 12 lacks an inventive step and so does not meet the criterion stipulated in PCT Article 33(3).
11. A person skilled in the art is generally aware that the ball bearing known from D1 is equivalent to the hydrodynamic or hydrostatic bearing and is, if necessary, interchangeable therewith. Thus, the subject matter of claim 21 lacks an inventive step and so does not meet the criterion stipulated in PCT Article 33(3).
12. The combination of features contained in dependent claim 30 is neither known from nor suggested by the relevant prior art. Claim 30 thus meets the requirements of PCT Article 33(2) and (3).